

OIEP

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/003,690

DATE: 12/11/2001
TIME: 11:50:00

Input Set : A:\Seqlist.txt
Output Set: N:\CRF3\12112001\I003690.raw

4 <110> APPLICANT: Rory A.J. Curtis
6 <120> TITLE OF INVENTION: 55053, A Novel Human Eukaryotic Kinase
7 and Uses Therefor
9 <130> FILE REFERENCE: MNI-206
C--> 11 <140> CURRENT APPLICATION NUMBER: US/10/003,690
C--> 11 <141> CURRENT FILING DATE: 2001-11-15
11 <150> PRIOR APPLICATION NUMBER: 60/248,893
12 <151> PRIOR FILING DATE: 2000-11-15
14 <160> NUMBER OF SEQ ID NOS: 8
16 <170> SOFTWARE: FastSEQ for Windows Version 4.0
18 <210> SEQ ID NO: 1
19 <211> LENGTH: 2980
20 <212> TYPE: DNA
21 <213> ORGANISM: Homo sapiens
23 <220> FEATURE:
24 <221> NAME/KEY: CDS
25 <222> LOCATION: (86)...(2419)
27 <400> SEQUENCE: 1
28 gtcgacccac gcgtccgcgg acgcgtgggc ggacgcgtgg gcggacgcgt gggggggggac 60
29 cggtcggggcc gggaccaagg gcacc atg tcg tcc ggg gcc aag gag gga ggt 112
30 Met Ser Ser Gly Ala Lys Glu Gly Gly
31 1 5
33 ggg ggc tct ccc gcc tac cac ctc ccc cac ccc cac cca ccc 160
34 Gly Gly Ser Pro Ala Tyr His Leu Pro His Pro His Pro Pro
35 10 15 20 25
37 cag cac gcc caa tat gtg ggc ccc tat cgg ctg gag aag acg ctg ggc 208
38 Gln His Ala Gln Tyr Val Gly Pro Tyr Arg Leu Glu Lys Thr Leu Gly
39 30 35 40
41 aaa gga cag aca ggg ctg gtt aaa ctc ggg gtc cac tgc atc acg ggt 256
42 Lys Gly Gln Thr Gly Leu Val Lys Leu Gly Val His Cys Ile Thr Gly
43 45 50 55
45 cag aag gtc gcc atc aag atc gtg aac cgg gag aag ctg tcg gag tcg 304
46 Gln Lys Val Ala Ile Lys Ile Val Asn Arg Glu Lys Leu Ser Glu Ser
47 60 65 70
49 gtg ctg atg aag gtg gag cgg gag atc gcc atc ctg aag ctc atc gaa 352
50 Val Leu Met Lys Val Glu Arg Glu Ile Ala Ile Leu Lys Leu Ile Glu
51 75 80 85
53 cac cca cat gtc ctc aag ctc cac gac gtc tac gag aac aag aaa tat 400
54 His Pro His Val Leu Lys Leu His Asp Val Tyr Glu Asn Lys Lys Tyr
55 90 95 100 105
57 ttg tac ctg gtt ctg gag cac gtc tcg ggg ggt gag cta ttc gac tac 448
58 Leu Tyr Leu Val Leu Glu His Val Ser Gly Gly Glu Leu Phe Asp Tyr
59 110 115 120
61 ctg gta aag aag ggg aga ctg acg ccc aag gag gcc cga aag ttc ttc 496
62 Leu Val Lys Lys Gly Arg Leu Thr Pro Lys Glu Ala Arg Lys Phe Phe
63 125 130 135
65 cgc cag att gtg tct gcg ctg gac ttc tgc cac agc tac tcc atc tgc 544

ENTERED

RAW SEQUENCE LISTING
 PATENT APPLICATION: US/10/003,690

DATE: 12/11/2001
 TIME: 11:50:00

Input Set : A:\Seqlist.txt
 Output Set: N:\CRF3\12112001\I003690.raw

```

66 Arg Gln Ile Val Ser Ala Leu Asp Phe Cys His Ser Tyr Ser Ile Cys
67      140      145      150
69 cac aga gac cta aag ccc gag aac ctg ctt ttg gat gag aaa aac aac 592
70 His Arg Asp Leu Lys Pro Glu Asn Leu Leu Leu Asp Glu Lys Asn Asn
71      155      160      165
73 atc cgc att gca gac ttc ggc atg gcg tcc ctg cag gtg ggg gac agc 640
74 Ile Arg Ile Ala Asp Phe Gly Met Ala Ser Leu Gln Val Gly Asp Ser
75 170      175      180      185
77 ctc ctg gag acc agc tgc ggg tcc ccc cat tat gcg tgt cca gag gtg 688
78 Leu Leu Glu Thr Ser Cys Gly Ser Pro His Tyr Ala Cys Pro Glu Val
79      190      195      200
81 att aag ggg gaa aaa tat gat ggc cgc cgg gca gac atg tgg agc tgt 736
82 Ile Lys Gly Glu Lys Tyr Asp Gly Arg Arg Ala Asp Met Trp Ser Cys
83      205      210      215
85 gga gtc atc ctc ttc gcc ctg ctc gtg ggg gct ctg ccc ttt gat gac 784
86 Gly Val Ile Leu Phe Ala Leu Leu Val Gly Ala Leu Pro Phe Asp Asp
87      220      225      230
89 gac aac ctc cgc cag ctg ctg gag aag gtg aaa cgg ggc gtc ttc cac 832
90 Asp Asn Leu Arg Gln Leu Leu Glu Lys Val Lys Arg Gly Val Phe His
91      235      240      245
93 atg ccc cac ttc att cct cca gat tgc cag agc ctc ctg agg gga atg 880
94 Met Pro His Phe Ile Pro Pro Asp Cys Gln Ser Leu Leu Arg Gly Met
95 250      255      260      265
97 atc gaa gtg gag ccc gaa aaa agg ctc agt ctg gag caa att cag aaa 928
98 Ile Glu Val Glu Pro Glu Lys Arg Leu Ser Leu Glu Gln Ile Gln Lys
99      270      275      280
101 cat cct tgg tac cta ggc ggg aaa cac gag cca gac ccg tgc ctg gag 976
102 His Pro Trp Tyr Leu Gly Gly Lys His Glu Pro Asp Pro Cys Leu Glu
103      285      290      295
105 cca gcc cct ggc cgc cgg gta gcc atg cgg agc ctg cca tcc aac gga 1024
106 Pro Ala Pro Gly Arg Arg Val Ala Met Arg Ser Leu Pro Ser Asn Gly
107      300      305      310
109 gag ctg gac ccc gac gtc cta gag agc atg gca tca ctg ggc tgc ttc 1072
110 Glu Leu Asp Pro Asp Val Leu Glu Ser Met Ala Ser Leu Gly Cys Phe
111      315      320      325
113 agg gac cgc gag agg ctg cat cgc gag ctg cgc agt gag gag gag aac 1120
114 Arg Asp Arg Glu Arg Leu His Arg Glu Leu Arg Ser Glu Glu Glu Asn
115 330      335      340      345
117 caa gaa aag atg ata tat tat ctg ctt ttg gat cgg aag gag cgg tat 1168
118 Gln Glu Lys Met Ile Tyr Tyr Leu Leu Leu Asp Arg Lys Glu Arg Tyr
119      350      355      360
121 ccc agc tgt gag gac cag gac ctg cct ccc cgg aat gat gtt gac ccc 1216
122 Pro Ser Cys Glu Asp Gln Asp Leu Pro Pro Arg Asn Asp Val Asp Pro
123      365      370      375
125 ccc cgg aag cgt gtg gat tct ccc atg ctg agc cgt cac ggg aag cgg 1264
126 Pro Arg Lys Arg Val Asp Ser Pro Met Leu Ser Arg His Gly Lys Arg
127      380      385      390
129 cga cca gag cgg aag tcc atg gaa gtc ctg agc atc acc gat gcc ggg 1312
130 Arg Pro Glu Arg Lys Ser Met Glu Val Leu Ser Ile Thr Asp Ala Gly

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/003,690

DATE: 12/11/2001

TIME: 11:50:00

Input Set : A:\Seqlist.txt

Output Set: N:\CRF3\12112001\I003690.raw

```

131      395      400      405
133 ggt ggt ggc tcc cct gta ccc acc cga cgg gcc ttg gag atg gcc cag 1360
134 Gly Gly Gly Ser Pro Val Pro Thr Arg Arg Ala Leu Glu Met Ala Gln
135 410      415      420      425
137 cac agc cag aga tcc cgt agc gtc agt gga gcc tcc acg ggt ctg tcc 1408
138 His Ser Gln Arg Ser Arg Ser Val Ser Gly Ala Ser Thr Gly Leu Ser
139      430      435      440
141 tcc agc cct cta agc agc cca agg agt ccg gtc ttt tcc ttt tca ccg 1456
142 Ser Ser Pro Leu Ser Ser Pro Arg Ser Pro Val Phe Ser Phe Ser Pro
143      445      450      455
145 gag ccg ggg gct gga gat gag gct cga ggc ggg ggc tcc ccg act tcc 1504
146 Glu Pro Gly Ala Gly Asp Glu Ala Arg Gly Gly Gly Ser Pro Thr Ser
147      460      465      470
149 aaa acg cag acg ctg cct tct cgg ggc ccc agg ggt ggg ggc gcc ggg 1552
150 Lys Thr Gln Thr Leu Pro Ser Arg Gly Pro Arg Gly Gly Gly Ala Gly
151      475      480      485
153 gag cag ccc ccg ccc ccc agt gcc cgc tcc aca ccc ctg ccc ggc ccc 1600
154 Glu Gln Pro Pro Pro Pro Ser Ala Arg Ser Thr Pro Leu Pro Gly Pro
155 490      495      500      505
157 cca ggc tcc ccg cgc tcc tct ggc ggg acc ccc ttg cac tcg cct ctg 1648
158 Pro Gly Ser Pro Arg Ser Ser Gly Gly Thr Pro Leu His Ser Pro Leu
159      510      515      520
161 cac acg ccc cgg gcc agt ccc acc ggg acc ccg ggg aca aca cca ccc 1696
162 His Thr Pro Arg Ala Ser Pro Thr Gly Thr Pro Gly Thr Thr Pro Pro
163      525      530      535
165 ccc agc ccc ggc ggt ggc gtc ggg gga gcc gcc tgg agg agt cgt ctc 1744
166 Pro Ser Pro Gly Gly Gly Val Gly Gly Ala Ala Trp Arg Ser Arg Leu
167      540      545      550
169 aac tcc atc cgc aac agc ttc ctg ggc tcc cct cgc ttt cac cgg cgc 1792
170 Asn Ser Ile Arg Asn Ser Phe Leu Gly Ser Pro Arg Phe His Arg Arg
171      555      560      565
173 aag atg cag gtc cct acc gct gag gag atg tcc agc ttg acg cca gag 1840
174 Lys Met Gln Val Pro Thr Ala Glu Glu Met Ser Ser Leu Thr Pro Glu
175 570      575      580      585
177 tcc tcc ccg gag ctg gca aaa cgc tcc tgg ttc ggg aac ttc atc tcc 1888
178 Ser Ser Pro Glu Leu Ala Lys Arg Ser Trp Phe Gly Asn Phe Ile Ser
179      590      595      600
181 ttg gac aaa gaa gaa caa ata ttc ctc gtg cta aag gac aaa cct ctc 1936
182 Leu Asp Lys Glu Glu Gln Ile Phe Leu Val Leu Lys Asp Lys Pro Leu
183      605      610      615
185 agc agc atc aaa gca gac atc gtc cat gcc ttt ctg tcg atc ccc agc 1984
186 Ser Ser Ile Lys Ala Asp Ile Val His Ala Phe Leu Ser Ile Pro Ser
187      620      625      630
189 ctg agt cac agt gtg ctg tca cag acc agc ttc agg gcc gag tac aag 2032
190 Leu Ser His Ser Val Leu Ser Gln Thr Ser Phe Arg Ala Glu Tyr Lys
191      635      640      645
193 gcc agt ggc ggc ccc tcc gtc ttc caa aag ccc gtc cgc ttc cag gtg 2080
194 Ala Ser Gly Gly Pro Ser Val Phe Gln Lys Pro Val Arg Phe Gln Val
195 650      655      660      665

```

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/003,690

DATE: 12/11/2001
TIME: 11:50:00

Input Set : A:\Seqlist.txt
Output Set: N:\CRF3\12112001\I003690.raw

```

197 gac atc agc tcc tct gag ggt cca gag ccc tcc ccg cga cgg gac ggc 2128
198 Asp Ile Ser Ser Ser Glu Gly Pro Glu Pro Ser Pro Arg Arg Asp Gly
199 670 675 680
201 agc gga ggt ggt ggc atc tac tcc gtc acc ttc act ctc atc tcg ggt 2176
202 Ser Gly Gly Gly Gly Ile Tyr Ser Val Thr Phe Thr Leu Ile Ser Gly
203 685 690 695
205 ccc agc cgt cgg ttc aag cga gtg gtg gag acc atc cag gca cag ctc 2224
206 Pro Ser Arg Arg Phe Lys Arg Val Val Glu Thr Ile Gln Ala Gln Leu
207 700 705 710
209 ctg agc act cat gac cag ccc tcc gtg cag gcc ctg gca gac gag aag 2272
210 Leu Ser Thr His Asp Gln Pro Ser Val Gln Ala Leu Ala Asp Glu Lys
211 715 720 725
213 aac ggg gcc cag acc cgg cct gct ggt gcc cca ccc cga agc ctg cag 2320
214 Asn Gly Ala Gln Thr Arg Pro Ala Gly Ala Pro Pro Arg Ser Leu Gln
215 730 735 740 745
217 ccc cca ccc ggc cgc cca gac cca gag ctg agc agc tct ccc cgc cga 2368
218 Pro Pro Pro Gly Arg Pro Asp Pro Glu Leu Ser Ser Ser Pro Arg Arg
219 750 755 760
221 ggc ccc ccc aag gac aag aag ctc ctg gcc acc aac ggg acc cct ctg 2416
222 Gly Pro Pro Lys Asp Lys Lys Leu Leu Ala Thr Asn Gly Thr Pro Leu
223 765 770 775
225 ccc tgacccccacg gggccgggga gggagggggac cccctccac ccccttccg 2469
226 Pro
229 tgccccccaa ctgtgaatct gtaaataagg cccaaggaac atgtcgggag ggggggtggac 2529
230 acaaaaaaccg gccttgccct gcagggatgg ggctccacag gccgtgccca actgggggtg 2589
231 gttctagggg aacagggggc gggggagctg tttctatattt atttattgat taatttatta 2649
232 ttttatttat tgatcaatct ctctgcgggg tgggggtgggg gagggacggg agctggttg 2709
233 ggtggttag cagatccgga cagggccctc tgtccctgtg tcgtcccaaa cccctcttc 2769
234 ccgggccct cctccccctg tctcccccc acgaccttct gtacggattt gctctccgga 2829
235 aggaattctg gtttcgcgtg atcctgctg cgtccgtgtc tctgattccg ccggcggcaa 2889
236 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa ataataataa taaatagcct tgatcaggga 2949
237 aaaaaaaaaa aaaaaaaaaa ggcggccgct a 2980
239 <210> SEQ ID NO: 2
240 <211> LENGTH: 778
241 <212> TYPE: PRT
242 <213> ORGANISM: Homo sapiens
244 <400> SEQUENCE: 2
245 Met Ser Ser Gly Ala Lys Glu Gly Gly Gly Gly Ser Pro Ala Tyr His
246 1 5 10 15
247 Leu Pro His Pro His Pro His Pro Pro Gln His Ala Gln Tyr Val Gly
248 20 25 30
249 Pro Tyr Arg Leu Glu Lys Thr Leu Gly Lys Gly Gln Thr Gly Leu Val
250 35 40 45
251 Lys Leu Gly Val His Cys Ile Thr Gly Gln Lys Val Ala Ile Lys Ile
252 50 55 60
253 Val Asn Arg Glu Lys Leu Ser Glu Ser Val Leu Met Lys Val Glu Arg
254 65 70 75 80
255 Glu Ile Ala Ile Leu Lys Leu Ile Glu His Pro His Val Leu Lys Leu
256 85 90 95

```

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/003,690

DATE: 12/11/2001
TIME: 11:50:00

Input Set : A:\Seqlist.txt
Output Set: N:\CRF3\12112001\I003690.raw

```

257 His Asp Val Tyr Glu Asn Lys Lys Tyr Leu Tyr Leu Val Leu Glu His
258                      100                      105                      110
259 Val Ser Gly Gly Glu Leu Phe Asp Tyr Leu Val Lys Lys Gly Arg Leu
260                      115                      120                      125
261 Thr Pro Lys Glu Ala Arg Lys Phe Phe Arg Gln Ile Val Ser Ala Leu
262                      130                      135                      140
263 Asp Phe Cys His Ser Tyr Ser Ile Cys His Arg Asp Leu Lys Pro Glu
264 145                      150                      155                      160
265 Asn Leu Leu Leu Asp Glu Lys Asn Asn Ile Arg Ile Ala Asp Phe Gly
266                      165                      170                      175
267 Met Ala Ser Leu Gln Val Gly Asp Ser Leu Leu Glu Thr Ser Cys Gly
268                      180                      185                      190
269 Ser Pro His Tyr Ala Cys Pro Glu Val Ile Lys Gly Glu Lys Tyr Asp
270                      195                      200                      205
271 Gly Arg Arg Ala Asp Met Trp Ser Cys Gly Val Ile Leu Phe Ala Leu
272                      210                      215                      220
273 Leu Val Gly Ala Leu Pro Phe Asp Asp Asp Asn Leu Arg Gln Leu Leu
274 225                      230                      235                      240
275 Glu Lys Val Lys Arg Gly Val Phe His Met Pro His Phe Ile Pro Pro
276                      245                      250                      255
277 Asp Cys Gln Ser Leu Leu Arg Gly Met Ile Glu Val Glu Pro Glu Lys
278                      260                      265                      270
279 Arg Leu Ser Leu Glu Gln Ile Gln Lys His Pro Trp Tyr Leu Gly Gly
280                      275                      280                      285
281 Lys His Glu Pro Asp Pro Cys Leu Glu Pro Ala Pro Gly Arg Arg Val
282                      290                      295                      300
283 Ala Met Arg Ser Leu Pro Ser Asn Gly Glu Leu Asp Pro Asp Val Leu
284 305                      310                      315                      320
285 Glu Ser Met Ala Ser Leu Gly Cys Phe Arg Asp Arg Glu Arg Leu His
286                      325                      330                      335
287 Arg Glu Leu Arg Ser Glu Glu Glu Asn Gln Glu Lys Met Ile Tyr Tyr
288                      340                      345                      350
289 Leu Leu Leu Asp Arg Lys Glu Arg Tyr Pro Ser Cys Glu Asp Gln Asp
290                      355                      360                      365
291 Leu Pro Pro Arg Asn Asp Val Asp Pro Pro Arg Lys Arg Val Asp Ser
292                      370                      375                      380
293 Pro Met Leu Ser Arg His Gly Lys Arg Arg Pro Glu Arg Lys Ser Met
294 385                      390                      395                      400
295 Glu Val Leu Ser Ile Thr Asp Ala Gly Gly Gly Gly Ser Pro Val Pro
296                      405                      410                      415
297 Thr Arg Arg Ala Leu Glu Met Ala Gln His Ser Gln Arg Ser Arg Ser
298                      420                      425                      430
299 Val Ser Gly Ala Ser Thr Gly Leu Ser Ser Ser Pro Leu Ser Ser Pro
300                      435                      440                      445
301 Arg Ser Pro Val Phe Ser Phe Ser Pro Glu Pro Gly Ala Gly Asp Glu
302                      450                      455                      460
303 Ala Arg Gly Gly Gly Ser Pro Thr Ser Lys Thr Gln Thr Leu Pro Ser
304 465                      470                      475                      480
305 Arg Gly Pro Arg Gly Gly Gly Ala Gly Glu Gln Pro Pro Pro Pro Ser

```

→ Use of n and/or Xaa has been detected in the Sequence Listing.
Review the Sequence Listing to insure a corresponding
explanation is presented in the <220> to <223> fields of
each sequence using n or Xaa.

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/003,690

DATE: 12/11/2001

TIME: 11:50:01

Input Set : A:\Seqlist.txt

Output Set: N:\CRF3\12112001\I003690.raw

L:11 M:270 C: Current Application Number differs, Replaced Current Application No
L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:582 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4